### **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

10/551,775
P4/10
10/14/05

## ENTERED



DATE: 10/14/2005

PCT

PATENT APPLICATION: US/10/551,775 TIME: 13:26:09 Input Set : A:\PTO.RJ.txt Output Set: N:\CRF4\10142005\J551775.raw 3 <110> APPLICANT: Hanna, Michelle M 5 <120> TITLE OF INVENTION: Molecular Detection Systems Utilizing Reiterative Oligonucleotide 6 Synthesis 8 <130> FILE REFERENCE: 2072.0010009 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/551,775 C--> 11 <141> CURRENT FILING DATE: 2005-10-03 13 <150> PRIOR APPLICATION NUMBER: US 10/425,037 14 <151> PRIOR FILING DATE: 2003-04-29 16 <160> NUMBER OF SEQ ID NOS: 21 18 <170> SOFTWARE: PatentIn version 3.3 20 <210> SEQ ID NO: 1 21 <211> LENGTH: 64 22 <212> TYPE: DNA 23 <213> ORGANISM: Artificial 25 <220> FEATURE: 26 <223> OTHER INFORMATION: capture probe 28 <400> SEQUENCE: 1 29 atatactggg tctacaaggt ttaagtcaac cagggattga aatataactt ttaaacagag 60 64 34 <210> SEQ ID NO: 2 35 <211> LENGTH: 30 36 <212> TYPE: DNA 37 <213> ORGANISM: Artificial 39 <220> FEATURE: 40 <223> OTHER INFORMATION: methylated DNA template 43 <220> FEATURE: 44 <221> NAME/KEY: misc\_feature 45 <222> LOCATION: (2)..(2) 46 <223> OTHER INFORMATION: methylation 48 <220> FEATURE: 49 <221> NAME/KEY: misc\_feature 50 <222> LOCATION: (10)..(10) 51 <223> OTHER INFORMATION: methylation 53 <220> FEATURE: 54 <221> NAME/KEY: misc\_feature 55 <222> LOCATION: (26)..(26) 56 <223> OTHER INFORMATION: methylation 59 <400> SEQUENCE: 2 30 60 ccgcccaaac gggtccggag cgactcgtca 63 <210> SEQ ID NO: 3

RAW SEQUENCE LISTING

66 <213> ORGANISM: Artificial

64 <211> LENGTH: 30 65 <212> TYPE: DNA

## RAW SEQUENCE LISTING DATE: 10/14/2005 PATENT APPLICATION: US/10/551,775 TIME: 13:26:09

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\10142005\J551775.raw

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    72 <220> FEATURE:
    73 <221> NAME/KEY: misc_feature
    74 <222> LOCATION: (1)..(1)
    75 <223> OTHER INFORMATION: n is uracil.
    77 <220> FEATURE:
    78 <221> NAME/KEY: misc feature
    79 <222> LOCATION: (4)..(6)
    80 <223> OTHER INFORMATION: n is uracil.
    82 <220> FEATURE:
    83 <221> NAME/KEY: misc feature
     84 <222> LOCATION: (15)..(16)
     85 <223> OTHER INFORMATION: n is uracil.
     87 <220> FEATURE:
     88 <221> NAME/KEY: misc feature
    89 <222> LOCATION: (21)..(21)
     90 <223> OTHER INFORMATION: n is uracil.
     92 <220> FEATURE:
     93 <221> NAME/KEY: misc feature
     94 <222> LOCATION: (24)..(24)
     95 <223> OTHER INFORMATION: n is uracil.
     97 <220> FEATURE:
     98 <221> NAME/KEY: misc_feature
     99 <222> LOCATION: (29)..(29)
     100 <223> OTHER INFORMATION: n is uracil.
     102 <400> SEQUENCE: 3
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     106 <210> SEQ ID NO: 4
     107 <211> LENGTH: 30
     108 <212> TYPE: DNA
    109 <213> ORGANISM: Artificial
     111 <220> FEATURE:
    112 <223> OTHER INFORMATION: unmethylated DNA template
    114 <400> SEQUENCE: 4
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     115 ccgcccaaac gggtccggag cgactcgtca
     120 <210> SEQ ID NO: 5
     121 <211> LENGTH: 30
    122 <212> TYPE: DNA
    123 <213> ORGANISM: Artificial
    125 <220> FEATURE:
    126 <223> OTHER INFORMATION: deaminated unmethylated DNA
    129 <220> FEATURE:
    130 <221> NAME/KEY: misc_feature
    131 <222> LOCATION: (1)..(2)
    132 <223> OTHER INFORMATION: n is uracil.
    134 <220> FEATURE:
    135 <221> NAME/KEY: misc_feature
    136 <222> LOCATION: (4)..(6) \nearrow
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# RAW SEQUENCE LISTING PATENT APPLICATION: US/10/551,775 Input Set : A:\PTO.RJ.txt DATE: 10/14/2005 TIME: 13:26:09

Output Set: N:\CRF4\10142005\J551775.raw

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     139 <220> FEATURE:
     140 <221> NAME/KEY: misc_feature
     141 <222> LOCATION: (10)..(10)
     142 <223> OTHER INFORMATION: n is uracil.
     144 <220> FEATURE:
     145 <221> NAME/KEY: misc_feature
     146 <222> LOCATION: (15)..(16)
     147 <223> OTHER INFORMATION: n is uracil.
     149 <220> FEATURE:
    150 <221> NAME/KEY: misc feature
     151 <222> LOCATION: (21)..(21)
     152 <223> OTHER INFORMATION: n is uracil.
    154 <220> FEATURE:
    155 <221> NAME/KEY: misc feature
     156 <222> LOCATION: (24)..(24)
     157 <223> OTHER INFORMATION: n is uracil.
     159 <220> FEATURE:
    160 <221> NAME/KEY: misc feature
     161 <222> LOCATION: (26)..(26)
     162 <223> OTHER INFORMATION: n is uracil.
    164 <220> FEATURE:
    165 <221> NAME/KEY: misc_feature
     166 <222> LOCATION: (29)..(29)
     167 <223> OTHER INFORMATION: n is uracil.
    169 <400> SEQUENCE: 5
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     174 <211> LENGTH: 30
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     182 <213> ORGANISM: Artificial
     184 <220> FEATURE:
    185 <223> OTHER INFORMATION: deaminated methylated DNA
    188 <220> FEATURE:
    189 <221> NAME/KEY: misc feature
    190 <222> LOCATION: (1)..(1)
    191 <223> OTHER INFORMATION: n is uracil.
    193 <220> FEATURE:
    194 <221> NAME/KEY: misc feature
    195 <222> LOCATION: (2)..(2)
    196 <223> OTHER INFORMATION: methylation
    198 <220> FEATURE:
    199 <221> NAME/KEY: misc feature
    200 <222> LOCATION: (4)..(6)
    201 <223> OTHER INFORMATION: n is uracil.
    203 <220> FEATURE:
    204 <221> NAME/KEY: misc_feature
    205 <222> LOCATION: (10)..(10)
    206 <223> OTHER INFORMATION: methylation
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DATE: 10/14/2005

TIME: 13:26:09

#### Input Set : A:\PTO.RJ.txt Output Set: N:\CRF4\10142005\J551775.raw 208 <220> FEATURE: 209 <221> NAME/KEY: misc feature 210 <222> LOCATION: (15)..(16) 211 <223> OTHER INFORMATION: n is uracil. 213 <220> FEATURE: 214 <221> NAME/KEY: misc\_feature 215 <222> LOCATION: (24)..(24) 216 <223> OTHER INFORMATION: n is uracil. 218 <220> FEATURE: 219 <221> NAME/KEY: misc feature 220 <222> LOCATION: (26)..(26) 221 <223> OTHER INFORMATION: n is uracil. 223 <220> FEATURE: 224 <221> NAME/KEY: misc feature 225 <222> LOCATION: (26)..(26) 226 <223> OTHER INFORMATION: methylation 228 <220> FEATURE: 229 <221> NAME/KEY: misc feature 230 <222> LOCATION: (29)..(29) 231 <223> OTHER INFORMATION: n is uracil. 233 <400> SEQUENCE: 6 --> 234 ncgnnnaaac gggtnnggaa cgantngtna 30 237 <210> SEQ ID NO: 7 242 <211> LENGTH: 30 243 <212> TYPE: DNA 244 <213> ORGANISM: Artificial 246 <220> FEATURE: 247 <223> OTHER INFORMATION: deaminated unmethylated DNA 250 <220> FEATURE: 251 <221> NAME/KEY: misc feature 252 <222> LOCATION: (1)..(2) 253 <223 > OTHER INFORMATION: n is uracil. 255 <220> FEATURE: 256 <221> NAME/KEY: misc feature 257 <222> LOCATION: (4)..(6) 258 <223> OTHER INFORMATION: n is uracil. 260 <220> FEATURE: 261 <221> NAME/KEY: misc\_feature 262 <222> LOCATION: (10)..(10) 263 <223> OTHER INFORMATION: n is uracil. 265 <220> FEATURE: 266 <221> NAME/KEY: misc feature 267 <222> LOCATION: (15)..(16) 268 <223> OTHER INFORMATION: n is uracil. 270 <220> FEATURE: 271 <221> NAME/KEY: misc feature 272 <222> LOCATION: (21)..(21) 273 <223> OTHER INFORMATION: n is uracil.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/551,775

275 <220> FEATURE:

DATE: 10/14/2005

#### PATENT APPLICATION: US/10/551,775 TIME: 13:26:09 Input Set : A:\PTO.RJ.txt Output Set: N:\CRF4\10142005\J551775.raw 276 <221> NAME/KEY: misc feature 277 <222> LOCATION: (24)..(24) 278 <223> OTHER INFORMATION: n is uracil. 280 <220> FEATURE: 281 <221> NAME/KEY: misc feature 282 <222> LOCATION: (26)..(26) 283 <223> OTHER INFORMATION: n is uracil. 285 <220> FEATURE: 286 <221> NAME/KEY: misc feature 287 <222> LOCATION: (29)..(29) 288 <223> OTHER INFORMATION: n is uracil. 290 <400> SEQUENCE: 7 W--> 291 nngnnnaagn gggtnnggaa ngantngtna 30 294 <210> SEQ ID NO: 8 295 <211> LENGTH: 30 296 <212> TYPE: DNA 297 <213> ORGANISM: Artificial 303 <220> FEATURE: 304 <223> OTHER INFORMATION: deaminated target DNA 307 <220> FEATURE: 308 <221> NAME/KEY: misc\_feature 309 <222> LOCATION: (1)..(1) 310 <223> OTHER INFORMATION: n is uracil. 312 <220> FEATURE: 313 <221> NAME/KEY: misc\_feature 314 <222> LOCATION: (1)..(1) 315 <223> OTHER INFORMATION: methylation 317 <220> FEATURE: 318 <221> NAME/KEY: misc\_feature 319 <222> LOCATION: (4)..(6) 320 <223> OTHER INFORMATION: n is uracil. 322 <220> FEATURE: 323 <221> NAME/KEY: misc\_feature 324 <222> LOCATION: (9)..(9) 325 <223> OTHER INFORMATION: methylation 327 <220> FEATURE: 328 <221> NAME/KEY: misc\_feature 329 <222> LOCATION: (15)..(16) 330 <223> OTHER INFORMATION: n is uracil. 332 <220> FEATURE: 333 <221> NAME/KEY: misc\_feature 334 <222> LOCATION: (21)..(21) 335 <223> OTHER INFORMATION: n is uracil. 337 <220> FEATURE: 338 <221> NAME/KEY: misc\_feature 339 <222> LOCATION: (24)..(24) 340 <223> OTHER INFORMATION: n is uracil.

RAW SEQUENCE LISTING

342 <220> FEATURE:

343 <221> NAME/KEY: misc feature

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/14/2005 PATENT APPLICATION: US/10/551,775 TIME: 13:26:10

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\10142005\J551775.raw

#### Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 1,4,5,6,15,16,21,24,29

Seq#:5; N Pos. 1,2,4,5,6,15,16,21,24,26,29

Seq#:6; N Pos. 1,4,5,6,15,16,24,26,29

Seq#:7; N Pos. 1,2,4,5,6,10,15,16,21,24,26,29

Seq#:8; N Pos. 1,4,5,6,15,16,21,24,29

Seq#:9; N Pos. 10,11,12,13,14,15,16,17,18,19,20,21,22,23

Seq#:16; N Pos. 1,7,13,19

#### Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,19,20,21

#### VERIFICATION SUMMARY

DATE: 10/14/2005 PATENT APPLICATION: US/10/551,775 TIME: 13:26:10

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\10142005\J551775.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0 L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0 L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0 L:291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0 L:353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0 L:379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0 L:492 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0